

WHAT IS CLAIMED IS:

1. A dynamic test fixture for a vehicle, comprising:

a support frame whose dimensions in a direction of a transverse axis of the vehicle are smaller than a distance between wheels of the vehicle; and

a controllable adjusting device for the support frame, comprising:

a lifting assembly configured to move the support frame, from below, toward the vehicle, to lift the vehicle to a raised testing position, and to lower the vehicle after completion of a testing procedure;

a tilting assembly configured to act on the support frame in such a way that the vehicle, when situated in the raised testing position, is moved, for a first period of time, into at least one position that deviates from a horizontal position of the vehicle; and

a rotating assembly configured to influence the support frame in such a way that the vehicle, when situated in the raised testing position, is rotated around a vertical axis for a second period of time.

2. The dynamic test fixture according to claim 1,

wherein the support frame comprises a central support section; and

wherein the controllable adjusting device is configured to act, from below, on the central support section along the vertical axis.

3. The dynamic test fixture according to claim 2, wherein the central support section comprises:

a lower frame;

an upper frame; and

controllable closing devices interconnecting the lower frame and the upper frame in such a way that the upper frame is capable of being tilted along at least one of a longitudinal axis and a transverse axis of the vehicle.

4. The dynamic test fixture according to claim 3, further comprising a lift unit that is arranged between the lower frame and the upper frame of the central support section.

5. The dynamic test fixture according to claim 2, further comprising:

at least one of a first support arm and a second support arm that extends from a front face of the central support section along a longitudinal axis of the vehicle.

6. The dynamic test fixture according to claim 3, further comprising:

at least one of a first and a second support arm that extends from a front face of the upper frame of the central support section along the longitudinal axis of the vehicle.

7. The dynamic test fixture according to claim 5, wherein the at least one of the first support arm and the second support arm comprises a longitudinal telescoping arm that is capable of being extended and retracted along the longitudinal axis of the vehicle.

8. The dynamic test fixture according to claim 6, wherein the at least one of the first support arm and the second support arm comprises a longitudinal telescoping arm that is capable of being extended and retracted along the longitudinal axis of the vehicle.

9. The dynamic test fixture according to claim 5, wherein the at least one of the first support arm and the second support arm comprises a transverse telescoping arm that is capable of being extended and retracted along a transverse axis of the vehicle.

10. The dynamic test fixture according to claim 6, wherein the at least one of the first support arm and the second support arm comprises a transverse telescoping arm that is capable of being extended and retracted along the transverse axis of the vehicle.

11. The dynamic test fixture according to claim 7, wherein the at least one of the first support arm and the second support arm comprises a transverse telescoping arm that is capable of being extended and retracted along a transverse axis of the vehicle.

12. The dynamic test fixture according to claim 1,

wherein the support frame comprises gripping units;

wherein each of the gripping units is assigned to one of the wheels of the vehicle; and

wherein each of the gripping units engages on the respective assigned wheel to at least move the vehicle into the raised testing position.

13. The dynamic test fixture according to claim 12, wherein each of the gripping units comprises support pins that are capable of being extended and retracted and that are configured to extend along a transverse axis of the vehicle in such a way that the support pins contact an underside of the wheels of the vehicle.

14. The dynamic test fixture according to claim 13, wherein a respective pair of the support pins is arranged on each of a gripping units, which is assigned to the respective wheel of the vehicle.

15. A dynamic test fixture for a vehicle, comprising:

a support frame whose dimensions in a direction of a transverse axis of the vehicle are smaller than a distance between wheels of the vehicle; and

a controllable adjusting device for the support frame, comprising:

first means for moving the support frame, from below, toward the vehicle, for lifting the vehicle to a raised testing position, and for

lowering the vehicle after completion of a testing procedure;

second means for operating the support frame to move the vehicle, when situated in the raised testing position, into at least one position for a first period of time, wherein the at least one position deviates from a horizontal position of the vehicle; and

third means for operating the support frame to rotate the vehicle, when situated in the raised testing position, around a vertical axis for a second period of time.

16. A test stand for a vehicle, comprising:

a dynamic test fixture, comprising:

a support frame whose dimensions in a direction of a transverse axis of the vehicle are smaller than a distance between wheels of the vehicle; and

a controllable adjusting device for the support frame, comprising:

a lifting assembly configured to move the support frame, from below, toward the vehicle, to automatically lift the vehicle to a raised testing position, and to lower the vehicle after completion of a testing procedure;

a tilting assembly configured to act on the support frame in such a way that the vehicle, when situated in the raised testing position, is moved, for a first period of time, into at least

one position that deviates from a horizontal position of the vehicle; and

a rotating assembly configured to influence the support frame in such a way that the vehicle, when situated in the raised testing position, is rotated around a vertical axis for a second period of time.

17. The test stand according to claim 16, further comprising an automatic conveyance device configured to move the vehicle to the dynamic test fixture, to place the vehicle on the dynamic test fixture, and to remove the vehicle after the completion of the testing procedure.

18. The test stand according to claim 17,

wherein the automatic conveyance device comprises two parallel conveyor belts upon which the wheels of the vehicle rest; and

wherein the dynamic test fixture is arranged in a space between the two parallel conveyor belts.

19. The test stand according to claim 18, further comprising an assembly plane that is situated between the two parallel conveyor belts, wherein the dynamic test fixture is configured to be lowered into the assembly plane.

20. A multiple test stand to test a stabilizing system in a vehicle and other components of the vehicle, the multiple test stand comprising:

a dynamic test fixture, comprising:

a support frame whose dimensions in a direction of a transverse axis of the vehicle are smaller than a distance between wheels of the vehicle; and

a controllable adjusting device for the support frame,

comprising:

a lifting assembly configured to move the support frame, from below, toward the vehicle, to automatically lift the vehicle to a raised testing position, and to lower the vehicle after completion of a testing procedure;

a tilting assembly configured to act on the support frame in such a way that the vehicle, when situated in the raised testing position, is moved, for a first period of time, into at least one position that deviates from a horizontal position of the vehicle; and

a rotating assembly configured to influence the support frame in such a way that the vehicle, when situated in the raised testing position, is rotated around a vertical axis for a second period of time.

21. An assembly line for assembling a vehicle, comprising:

a plurality of assembling devices arranged in the assembly line; and

a dynamic test fixture arranged in the assembly line relative to the assembling devices, the dynamic test fixture comprising:

a support frame whose dimensions in a direction of a transverse axis of the vehicle are smaller than a distance between wheels of the vehicle; and

a controllable adjusting device for the support frame, comprising:

a lifting assembly configured to move the support frame, from below, toward the vehicle, to automatically lift the vehicle to a raised testing position, and to lower the vehicle after completion of a testing procedure;

a tilting assembly configured to act on the support frame in such a way that the vehicle, when situated in the raised testing position, is moved, for a first period of time, into at least one position that deviates from a horizontal position of the vehicle; and

a rotating assembly configured to influence the support frame in such a way that the vehicle, when situated in the raised testing position, is rotated around a vertical axis for a second period of time.

22. The assembly line of claim 21, wherein the dynamic test fixture is arranged between respective ones of the assembling devices.

23. The assembly line of claim 21, wherein the dynamic test fixture is arranged following the plurality of assembling devices.

24. A method, comprising:

lifting a vehicle having a stabilizing system to a testing position;

in the testing position and during operation of the stabilizing system, tilting the vehicle for a first period of time into a tilted position that deviates from a horizontal position of the vehicle;

in the testing position and during operation of the stabilizing system, rotating the vehicle for a second period of time around a vertical axis of the vehicle; and

analyzing the operation of the stabilizing system of the vehicle.

25. The method of claim 24 further comprising predetermining respective angular velocities for the tilting step and the rotating step.

26. The method of claim 24, wherein, in the testing step, sensors of the stabilizing system are tested.

27. The method of claim 24, further comprising testing components of the vehicle other than the stabilizing system.